

L 4411-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/ETC(m) WW/EM

ACC NR: AP5026930

SOURCE CODE: UR/0373/65/000/005/0068/0080

AUTHOR: Grigolyuk, E. I. (Novosibirsk); Chulkov, P. P. (Novosibirsk)

ORG: none

TITLE: Nonlinear equations for thin elastic layered anisotropic shallow shells with rigid cores

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 5, 1965, 68-80

TOPIC TAGS: shell, multilayer sandwich shell, shallow shell, nonlinear shell theory

ABSTRACT: The behavior of a thin, shallow, multilayer, elastic shell consisting of an arbitrary number of load-carrying and core layers (the latter being shear resisting) of constant thickness is discussed. The shell is subjected to a transverse loading and arbitrary heating. Instead of the Kirchhoff-Love hypotheses which are inapplicable in this investigation, a system of hypotheses is used which accounts for the shear in core layers: it is assumed that the transverse compressive deformation of the layer material is negligible, and that the normals to the initial surface remain straight under deformation, but they are not perpendicular to the deformed initial surface. The solutions based on the Kirchhoff-Love hypotheses can be obtained automatically from those based on the hypotheses proposed, by equating the shear moduli in the latter to infinity. In the general solution, these hypotheses are applied to each (load-carrying and core) layer, so that the relative sequence of both

Card 1/2

L 4411-66

ACC NR: AP5026930

layers can be arbitrary; when switching to a given particular problem, the values of shear moduli for the load-carrying layers must be considered as tending to infinity. Equations for sandwich shells and plates of symmetric and asymmetric construction can be regarded as such particular cases. A comparison of results for these shells obtained by the proposed theory with corresponding data from the theory of sandwich shells shows the correctness of proposed system of hypotheses of straight normals. The inner surface of the shell is taken as the initial one, and the expressions for displacements and strains, stresses, unit forces, and moments are written in accordance with the hypothesis of straight normals; differential equations are derived for equilibrium, boundary conditions, strain compatibility, and shear which describe completely the state of stress and strain in the shell. These equations are then applied to multilayer shells (solely under normal loading) with a symmetrical arrangement of layers and identical boundary conditions for symmetrically located layers, and to sandwich shells of symmetric construction. The handling of multilayer shells of asymmetric construction is indicated. Orig. art. has: 82 formulas. [VK]

SUB CODE: AS/ SUBM DATE: 13Jan65/ ORIG REF: 005/ OTH REF: 006/ ATD PRESS: 4125

GRIGOLYUK, E.I. (Novosibirsk); CHULKOV, P.P. (Novosibirsk)

Nonlinear equations of thin elastic laminated anisotropic shallow
shells with a rigid filler. Izv. AN SSSR. Mekh. no.5:68-80 S-0
'65. (MIRA 18:10)

L 47001-66 EWP(k)/EWT(d)/EWT(m)/EWP(w)/EWP(v) IJP(c) EM/RM/WW
ACC NR: AR6027169 SOURCE CODE: UR/0264/66/000/005/A009/A009

AUTHOR: Grigolyuk, E. I.; Chulkov, P. P.

15
14

B

TITLE: Theory of an elastic three-layer structure in non-linear formulation

SOURCE: Ref. zh. Vozdushnyy transport, Abs. 5A51

REF SOURCE: Sb. Raschety elementov, aviats. konstruktsiy. Vyp. 4,
M., Mashinostroyeniye, 1965, 99-133

TOPIC TAGS: Elastic structure, bending, three layer structure
three layer shell

ABSTRACT: Final bending of elastic three-layer structures with
fillers was studied. A survey of the works related to this problem
was given. Equations for the three-layer shells with initial bends
were obtained. An accurate solution was obtained for the problem of
slot cutting in an infinitely long cylindrical panel with a rigid
filler with both edges supported and sealed under an arbitrary trans-
verse load. The obtained solution was compared with the solution,
based on Bubnov's method with an approximation of the bend by the

Card 1/2

UDC: 539.4.620.1

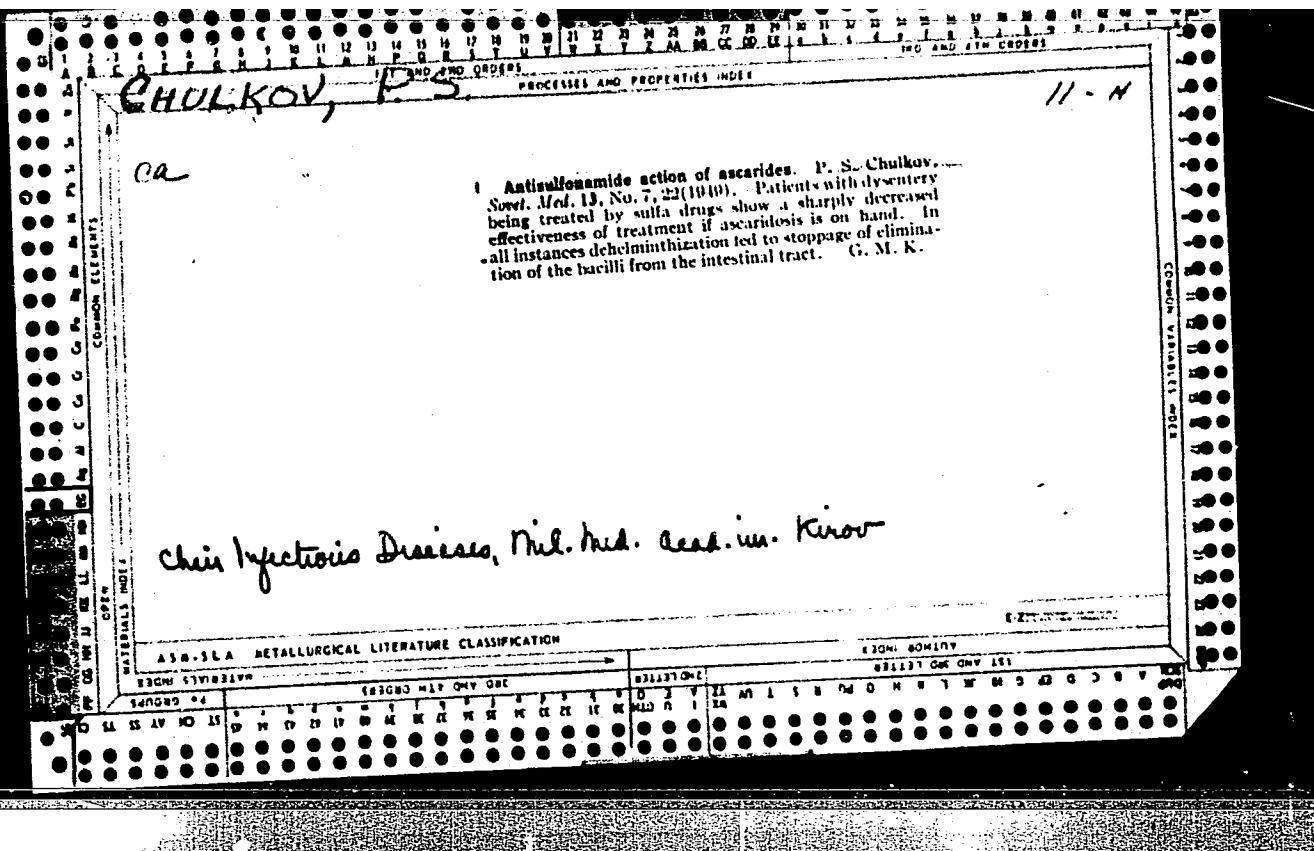
L 4700L-66

ACC NR: AR6027169

first two terms of the sine series in the case of a uniform transverse load. A solution was obtained on the basis of assumptions proposed in the study of non-linear equations. This solution determines the critical load of a uniformly, axially compressed thin, elastic three-layer circular cylindrical shell with a rigid filler. The critical uniform transverse pressure on a thin elastic three-layer spherical shell and the critical arbitrary uniform stress of a thin elastic conical shell were found by an analogous method. [Translation
of abstract] 24 [FM]

SUB CODE: 01/

Card 2/2



CHULKOV, P. S.

RA 66/49179

USER/Medicine - Dysentery
Colon

Apr 49

"Changes in the Colonic Mucous Membrane Due to Chronic Bacillary Dysentery According to Rectoromanoscopic Findings," Col. P. S. Chulkov, Med Corps, Chair of Infectious Diseases, Mil. Med Acad Imenni S. M. Kirov, 9 pp

"Klin Med" Vol XXVII, No 4

Rectoromanoscopic findings lead to two conclusions: Changes in the colonic mucous membrane most frequently observed were typical bacillary dysentery; no specific differences existed between the different types of microbes.

USER/Medicine - Dysentery
(Contd)

Apr 49

Chronic and recurrent cases may induce ulceration infiltration or induration of the walls or polyposis. Comparison with other data proves the reliability of rectoscopy findings. Prof Chair of Infectious Diseases: Prof N. I. Ragoza, Gen-Major, Med Corps, Hon Workers of Sci.

66/49179

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6

CHULKOV, P. S.

Chulkov, P. S. - "The tone and pressure of the veins during typhus," Sbornik trudov (Voyen.-med. akad. im. Kirova), Vol. XLIII, 1949, p. 170-84

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949.)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6"

11E

CHULKOV, P.S.
CA

C-Hypovitaminosis in chronic dysentery and its patho-
genic meaning. P. S. Chulkov. Terap. Arkk. 22,
No. 3, 81-4 (1950).—The av. C vitamin level in the plasma
of chronic dysenteries is but 0.05 mg. % (normal 0.30).
The hypovitaminosis is probably caused by disturbed as-
similation and absorption of food, as well as by direct
destruction of the vitamin in the intestines. The condi-
tion may be aggravated by intoxication with sulfa drugs.
G. M. Kosolapoff

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6

CHULKOV, S.N., kandidat tekhnicheskikh nauk.

Measurement of the area of the Kazakh S.S.R. Vest. AN Kazakh.SSR
11 no.7:100-103 Jl '54.

(MLRA 7:11)

(Kazakhstan--Area measurement) (Area measurement--Kazakhstan)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6"

VINNITSKIY, David Yakovlevich; GINZBURG-SHIK, Lev Davidovich; ZAYDEL', Viktor Arnol'dovich, kand. tekhn. nauk; ZAKHARASHEVICH, Anatoliy Aleksandrovich; KAFRALOV, Viktor Aleksandrovich; SOLOV'YEV, Vladimir Borisovich; CHULKOV, Sergey Pavlovich; YAKOBSON, Sergey Sergeyevich; KORIKOVSKIY, I.K., red.; ANTIKAYN, P.A., red.; VORONIN, K.P., tekhn. red.

[Handbook for the installation of heat engines and related equipment]
Spravochnik po montazhu teplomekhanicheskogo oborudovaniia. Izd. 2.,
perer. Moskva, Gos. energ. izd-vo, 1960. 560 p. (MIRA 14:8)
(Heat engines)

Chulkov, S.V.

AUTHOR: Chulkov, S.V., Chief Engineer 47-5-10/16

TITLE: The School Equipment Industry on the 40th Anniversary of the Great October (Uchebno-tehnicheskaya promyshlennost' k 40-letiyu velikogo oktyabrya)

PERIODICAL: Fizika v Shkole, September-October 1957, No 5, pp 69-73 (USSR)

ABSTRACT: The article gives a review of the activity of the Main Administration for the Factories of the School Equipment Industry (Glavuchtekhprom) since 1933. At the present time, eight shops producing visual aids, appliances and laboratory equipment are controlled by this Administration. Each plant specializes in certain articles. Plant No 1 at Rostov-na-Donu makes equipment for school workshops (wood- and metal working machines, joiner's benches, vises etc), plant No 2 for physical appliances (Fizpribor) at Kirov manufactures mechanical appliances, including those for liquids and gasses, electrostatics and all kinds of wood equipment. Plant No 4 - physical and electrical outfit (Fizelektropribor) in Moscow produces electric meters, magnetic appliances, electrical and radio devices etc. Plant No 5 im. Dzerzhinskiy at Shchelkovo produces appliances for various sections of physics (kinematics and dynamics, tuning forks, hydraulic presses, optical devices with cylindrical

Card 1/3

47-5-10/16

The School Equipment Industry on the 40th Anniversary of the Great October

lenses of organic glass, etc). Plant No 6 for manufacturing school equipment (Shkol'noye priborostoyeniye) at Zagorsk specializes in optical appliances (projectors, epidiascopes, filmoscopes, telescopes, etc). Plant No 7 which produces switchboards, voltage regulators and training diapositives, is located in Moscow and named "Elektropribor" - Electrical Appliances. Plant No 10 "Elektrodelo" at Leningrad makes electric heaters and electric vacuum tubes. Plant No 14 "Nature and School" (Priroda i shkola) has specialized in making visual aids for natural sciences. The output of these plants is growing every year (illustrated by a diagram in the article) and will amount more than 125 million rubles this year. Constant efforts are made to improve the devices and to introduce advanced methods of production leading to lower prices. The increased output does not as yet satisfy the demand. Towards the end of the Sixth 5-Year Plan the value of the equipment produced will amount to a total of 700 million rubles, an increase of 172% as compared with the preceding

Card 2/3
5-Year Plan.

47-5-10/16

The School Equipment Industry on the 40th Anniversary of the Great October

ASSOCIATION: Main Administration for Factories of the School Equipment Industry, Ministry of Education RSFSR (Glavuchtekhprom, ministerstva prosveshcheniya RSFSR)

AVAILABLE: Library of Congress

Card 3/3

ARTEMENKO, G.P.[Artemenko, H.P.]; VORONINA, O.F.; SEMEYKIN, M.S.;
FILONICH, V.S.[Filonych, V.S.]; NOSACH, I.P.; CHULKOV,
T.G.[Chulkov, T.H.]; TENENBAUM, A.B.KIFORENKO, I.S.
[Kyforenko, I.S.], red.; LEVCHENKO, O.K., tekhn. red.

[Work incentives in the period of the large-scale building
of communism] Stymuliuvannia pratsi v period rozhornutoho
budivnytstva kommunizmu. Kyiv, Derzhpolitydav URSR, 1964.
166 p. (MIRA 17:3)

1. Sotrudniki kafedry politicheskoy ekonomii Kharkovskogo
inzhenerno-ekonomiceskogo instituta (for all except
Kiforenko, Levchenko).

CHULKOV, V. D.

USSR/Miscellaneous - Timber Industry

Card 1/1

Authors : Chulkov, V. D., Chistyakov, N. N., and Mel'kikyan, N. V.

Title : A Cyclic Organization of Tree-Felling in the Maksatikhinsk Forest.

Periodical : Mekh. Trud. Rab. Ed. 3, 44 - 47, Apr - May 1954

Abstract : Methods for planning efficient tree-felling operations, charts indicating the productivity of individual working cadres and their earnings, and the machinery used in the above operation. Tables; graphs.

Institution :

Submitted :

CHUIKOV, V.D., inzhener; CHISTYAKOV, N.N., inzhener; MEL'KIKYAN, N.V.,
inzhener.

Continuous work organization of lumbering at the Maksatikha lumber
camp. Mekh.trud.rab. 8 no.3:44-47 Ap-My '54. (MLRA 7:6)
(Maksatikha region--Lumbering)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6

CHUIKOV, V.D.

CHUIKOV, V.D., inzhener; CHISTYAKOV, N.N., inzhener.

Work organization and records of trimmers in a mixed team.

Les.prom. 14 no.7:14 Jl '54.

(MLRA 7:7)

(Tree felling)

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6"

CHULKOV, Viktor Dmitriyevich; BARAKS, A.M., red.

[Protection of wood against rot and fire; from the work practices of the All-Union State Trust for Wood Preservation in Construction] Zashchita drevesiny ot gnieniiia i vozgoraniia; iz opyta raboty tresta Soiuzantiseptik. Moscow, Lesnaia promyshl., 1964. 105 p. (MIRA 18:3)

CHULKOV, Viktor Dmitriyevich; ALYAB'YEV, V.I., red.; KIMMEL', L.S.,
red. izd-va; SHIBKOVA, R.Ye., tekhn. red.

[Steel cables in the lumber industry] Stal'nye kanaty v lesnoi
promyshlennosti. Moskva, Goslesbumizdat, 1962. 134 p.
(MIRA 15:10)
(Lumber--Transportation) (Cableways)

~~CHULKOV, V.F.~~

First brigade of communist labor on the construction sites of the
Moscow subway. Transp.stroi. 9 no.6:7-8 Je '59. (MIRA 12:11)

1. Direktor zavoda No.1 Metrostroya.
(Moscow—Subways) (Construction workers)

CHUIKOV, V. L.; POSTNIKOV, M.A.

Use all methods to develop the initiative of public assistance
commissions. Gor. khoz. Mosk. 29 no. 8:37-40 Ag '55.
(Moscow--Community life) (MLRA 8:9)

CHUIKOV, V.L.

RODIONOV, B.Ye.; CHUIKOV, V.L.

Deputies of Moscow City and Regional Councils are active participants in the development of industrial and cultural facilities of the capital. Gor. khoz. Mosk. 31 no.2:3-5 F '57. (MIRA 10:4)

1. Sekretar' Ispolkomu Moskovskogo Soveta (for Rodionov). 2. Zamestitel' zaveduyushchego organizatsionno-instruktorskim otdelom Ispolkomu Moskovskogo Soveta.

(Moscow--Municipal government) (Moscow--Municipal services)

GORSKIY, Pavel Vasil'yevich; CHULKOV, V.N., red.; SVETLAYEVA, A.S.,
red.izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Manual on compiling tables] Rukovodstvo dlja sostavlenija
tablits. Moskva, Goslesbumizdat, 1962. 93 p.

(MIRA 16:5)
(Forests and forestry--Tables and ready-reckoners)

CA CHULKOV, V.N.

The reduction of palladium and platinum by hydrogen under pressure. V. G. Troev and V. N. Chulkov. *Doklady Akad. Nauk S.S.R.* 57, 269-70 (1947); *Chem. Zentral. (Russian Zone Ed.)* 1948, I, 1287.—Anhyd. crystals of a no. of Pt and Pd compds. were treated with H₂ under pressure in an autoclave. Several hrs. treatment at 100 atm. H₂ at room temp. produced no reduction except in the case of 1) palladommine. Pt and Pd black were then added as catalysts and the expts. repeated. The results support the assumption that an induction period is necessary for the reduction reaction. This dry reduction proceeded differently from the usual reduction with nascent H₂ in aq. soln. (reported by others). (NH₄)₂PtCl₆ was rapidly and explosively reduced. KPt(NO₃)₄, which is not reduced at ordinary temp. in aq. soln., was reduced still more rapidly. (NH₄)₂PtCl₆ was not reduced in the course of a day, although in aq. soln. it is reduced in 20-30 min. (NH₄)₂PtCl₆ was still unreduced after 1 hr. The heat of formation of these complexes can be detd. by their "combustion" in the H bomb. H₂ can be used for the refining of Pt and Pd in place of the roasting of the complexes.

M. G. Moore

CHUIKOV, V.N., kandidat khimicheskikh nauk.

Electrochlorination as a method of recovering metals*. Tsvet. met.
30 no.3:86-87 Mr '57. (MLRA 10:4)
(Chlorination) (Nonferrous metals--Metallurgy)

CHULKOV, V.N., inzh.

Automatic electric arc welding of aluminum-magnesium alloys through
a layer of flux. Svarka 2:195-202 '59. (MIRA 14:5)
(Aluminum-magnesium alloys—Welding)

PAS', Anatoliy Ivanovich; CHULKOV, Vyacheslav Nikolayevich; RYZHIK,
Z.M., red.; FREGER, D.P., red. izd-va; GVIKTS, V.L., tekhn.
red.

[Welding of aluminum-magnesium alloys in an argon-shielded
atmosphere over a layer of flux] Svarka aliuminievo-magnievykh
splavov v srede argona i po sloiu fliusa. Leningrad, 1962.
19 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Ob-
men peredovym opytom. Seriia: Svarka i paika, no.7)

(MIRA 15:10)

(Aluminum-magnesium alloys—Welding)
(Protective atmospheres)

CHULKOV, V.P., inshener.

Operating a locomobile electric power plant. Energetik 1 no.3:15-16 Ag '53.
(MIRA 6:8)
(Electric power plants)

CHULKOV, V. S.

Konstruktsiia i prochnost' samoletov. Moskva, 1948, 311 p., diagrs.

At head of title: Voenno-vozdushnaia inzhenernaia akademii im. N. E. Zhukovskogo.

Bibliography: p. 309.

Title tr.: Aircraft design and stress analysis.

Buffeting: p. 155-158. Flutter: p. 159-170

TL671.2.C53

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955

CHULKOV, V., COL

Pa. 173148

USSR/Engineering - Aircraft, Hydraulic Sep 49
Systems of

"Elimination of Defects in Aircraft Hydraulic
Systems," Col V. Chulkov, Engr, Cand Tech Sci

"Vest Vozdush Flota" No 9, pp 42-48

Outlines processes in hydraulic system during
operation. Explains most frequent failure causes.
Suggests methods for detection and elimination of
defects.

173148

SOV/84-58-4-30/48

AUTHOR: Chulkov, V.(S)

TITLE: In Those Harsh Years (V. surovyye gody)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 4, p 33 (USSR)

ABSTRACT: The author, now retired from flying, relates a rescue incident of a plane crew marooned in the desert in the winter of 1942.

1. Aviation--USSR 2. Rescues

Card 1/1

CHULKOV, V.V.; MIKHAYEVA, N.S., nachal'nik.

Tomograph for the pre-war model of the X-ray apparatus manufactured by the "Burevestnik" plant. Vest.rent.i rad. no.3:78-80 My-Je '53. (MLRA 6:8)

1. Medsanchast' Chelyabinskogo metallurgicheskogo zavoda.

(X-rays--Apparatus and supplies)

CHULKOV, V.V.

Case of osteopetrosis. Vest. rent. i rad. no.4:81 Jl-Ag '54.
(MIRA 7:10)
1. Iz mediko-zanitarnoy chasti Chelyabinskogo metallurgicheskogo
zavoda (nach. N.S.Mikheyeva)
(OSTEOSCLEROSIS,
osteopetrosis, case report)

"APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6

MOREV, N.Ye.; SHUMAYEV, F.G.; ITSKOVICH, Ya.S.; CHULKOV, V.V.

Travelling TsNIKHP-P-7-59 oven with a screened sole and gas heating. Trudy TSNIKHP no.8:28-30 '60. (MIRA 15:8)
(Ovens)

APPROVED FOR RELEASE: 06/12/2000

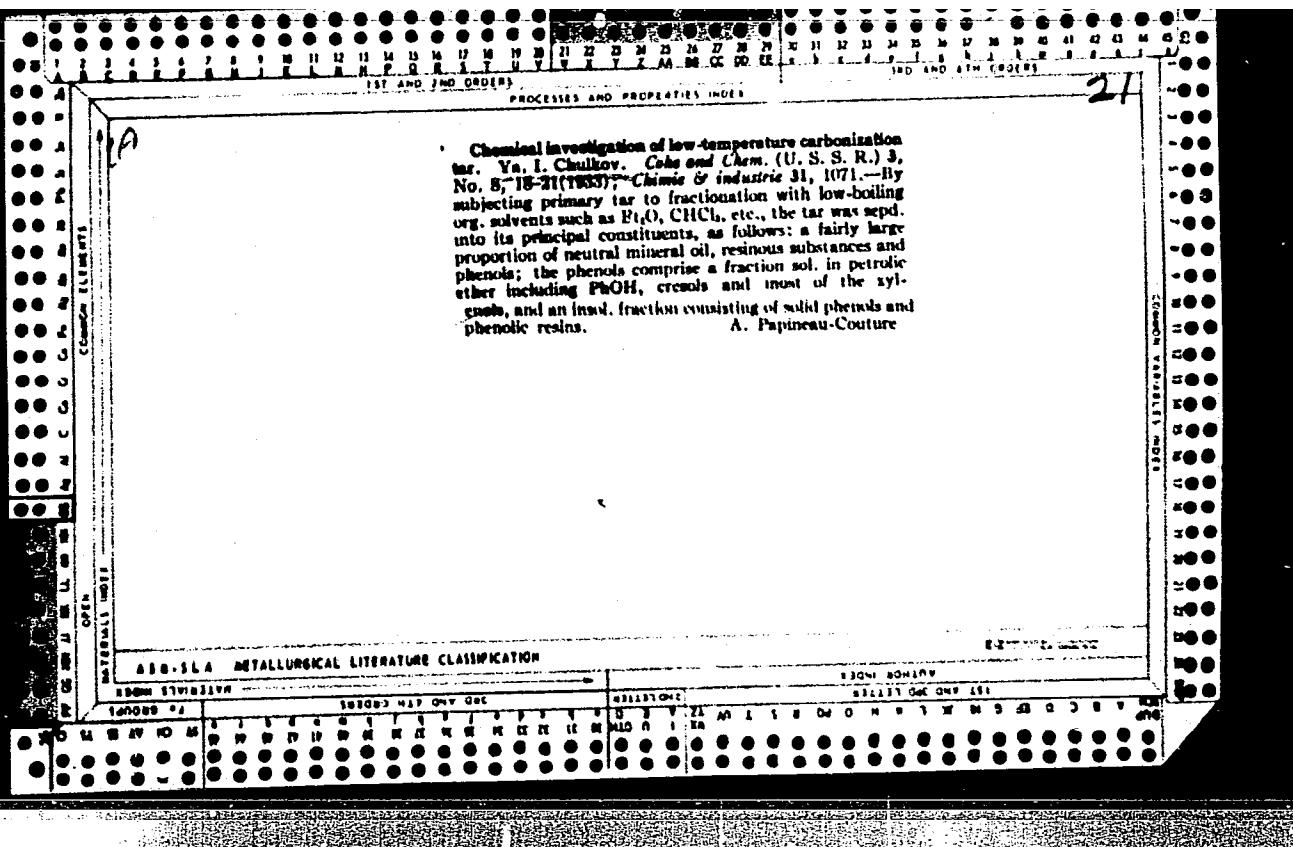
CIA-RDP86-00513R000509110018-6"

CHULKOV, Ye.G.

A densitometer without a lamp (A recorder for calculating
the electrophoregrams). Lab. delo 8 no.10851-54 *62

(MIRA 1784)

1. Tomskiy nauchno-issledovatel'skiy institut kurortologii i
fizioterapii.



CA

14

Purification of sewage. Yu. I. Chulkov. Russ. 39,688, Oct. 31, 1934. For the purpose of attaining a more complete oxidation of phenols and other org. compds., Ca(OH)₂ powder or NaOH is added to the water before chlorination, so as to produce a sufficient amount of chlorates, which are more vigorous oxidizers.

AS-SEA METALLURGICAL LITERATURE CLASSIFICATION

E2

26

CA

Lignin-phenol resins. Ya. I. Chukov, I. A. Speran
skaya and V. K. Kuznetsov. *Plasticheskie Massy*
1934, No. 2, 10-11.—Free lignin or sawdust is stirred
with 10 parts of PhOH and about 0.1% conc. HCl at
180° for 2.5 hrs. The product is washed free from PhOH
and extd. with EtOH. The lignin-PhOH is ptd. from

the ext. with H₂O. It contains free OH groups, which
can be methylated.

H. M. Leicester

ASA-B-5A METALLURGICAL LITERATURE CLASSIFICATION

CLASSIFICATION NUMBER

SEARCHED

INDEXED

SERIALIZED

FILED

CLASSIFICATION

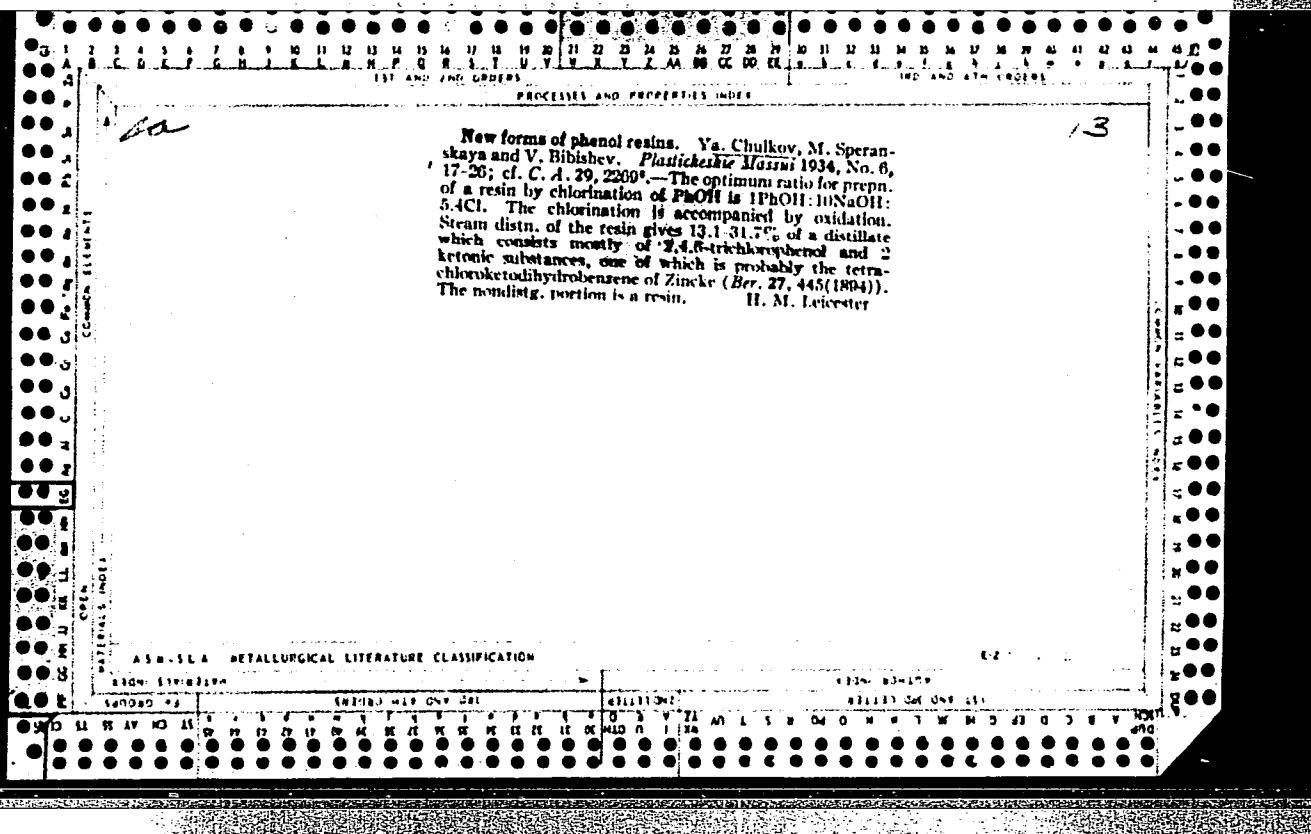
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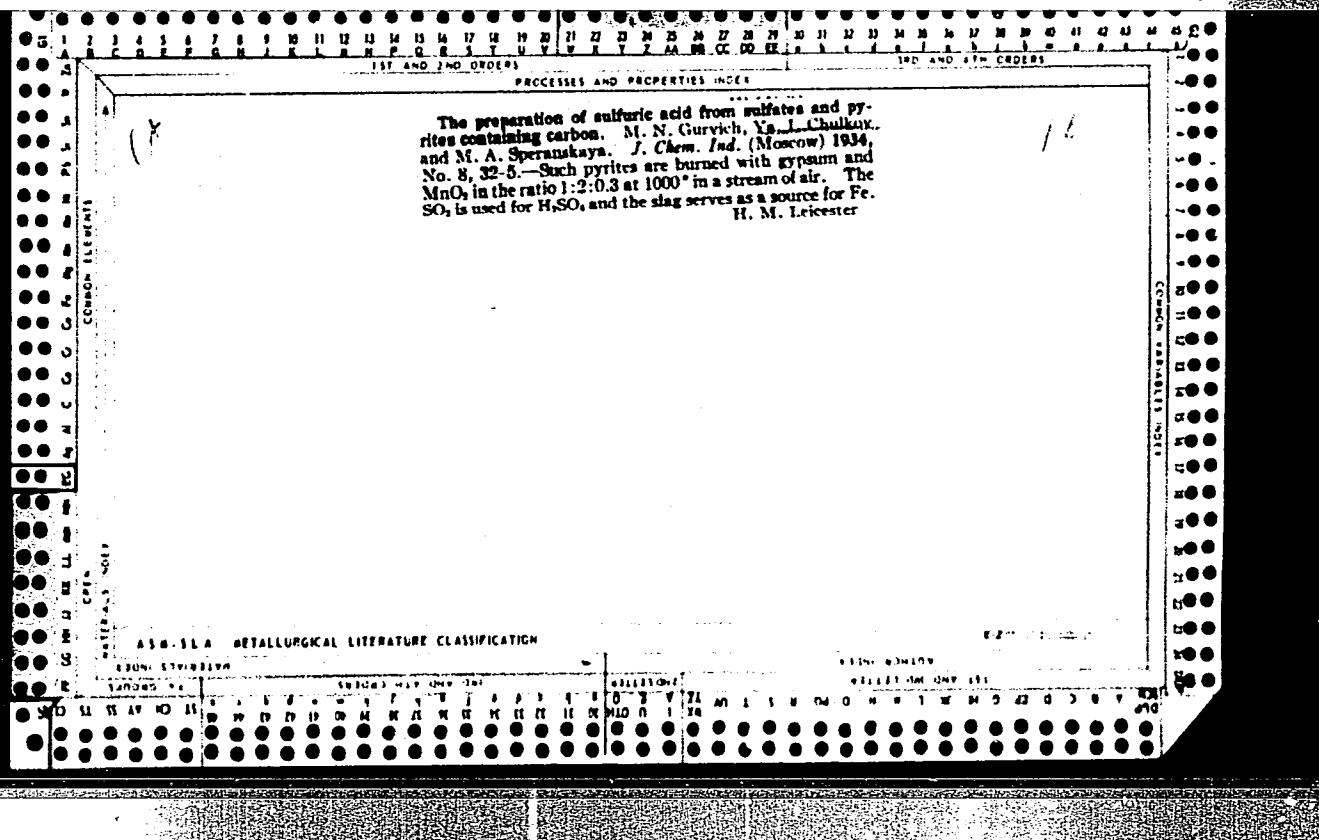
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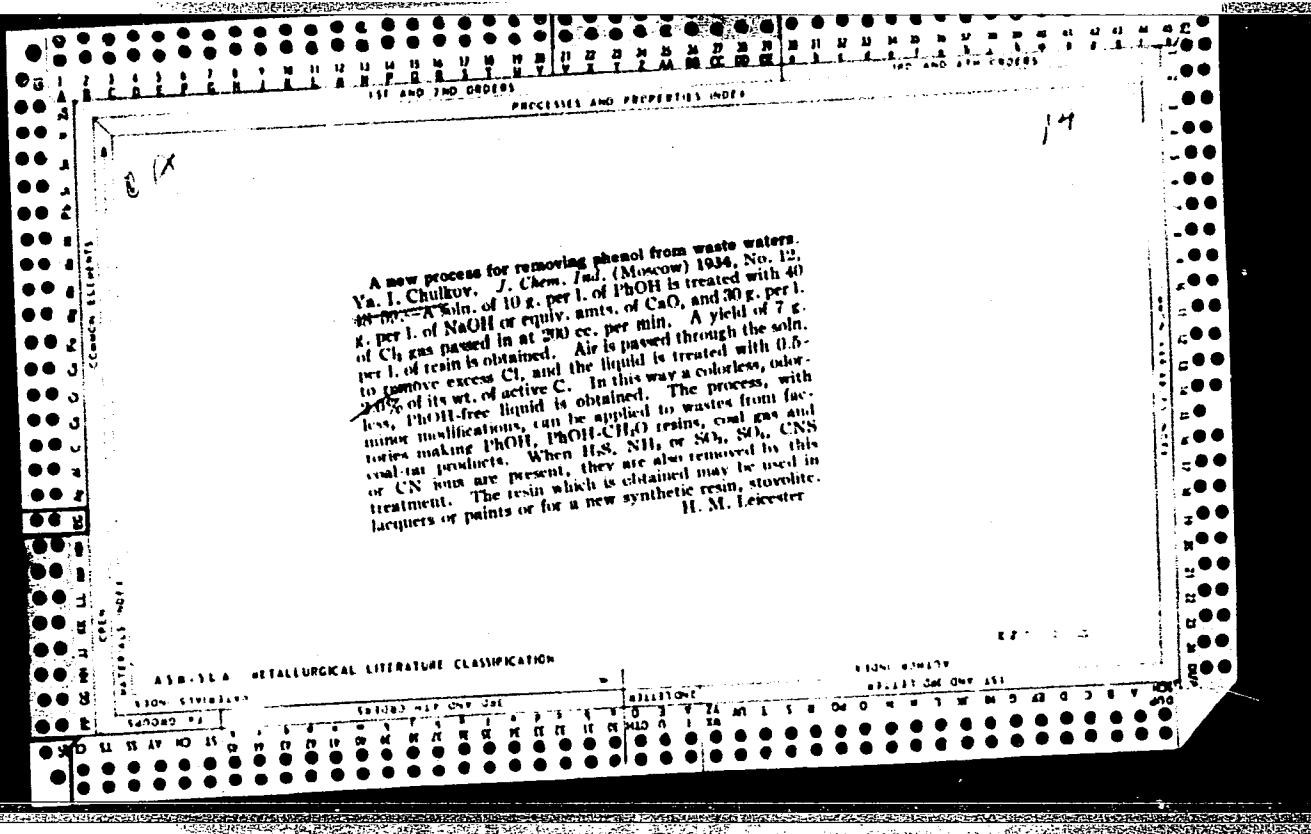
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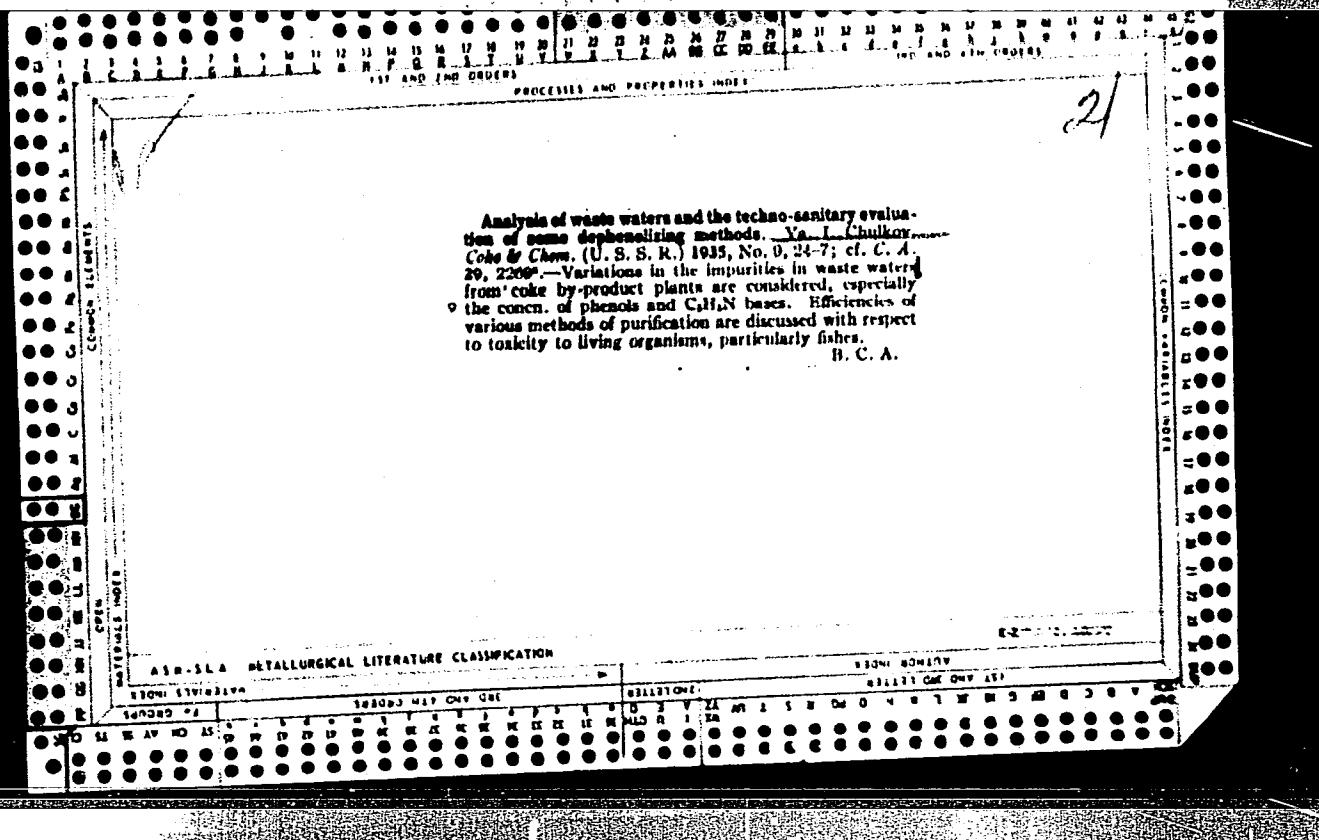
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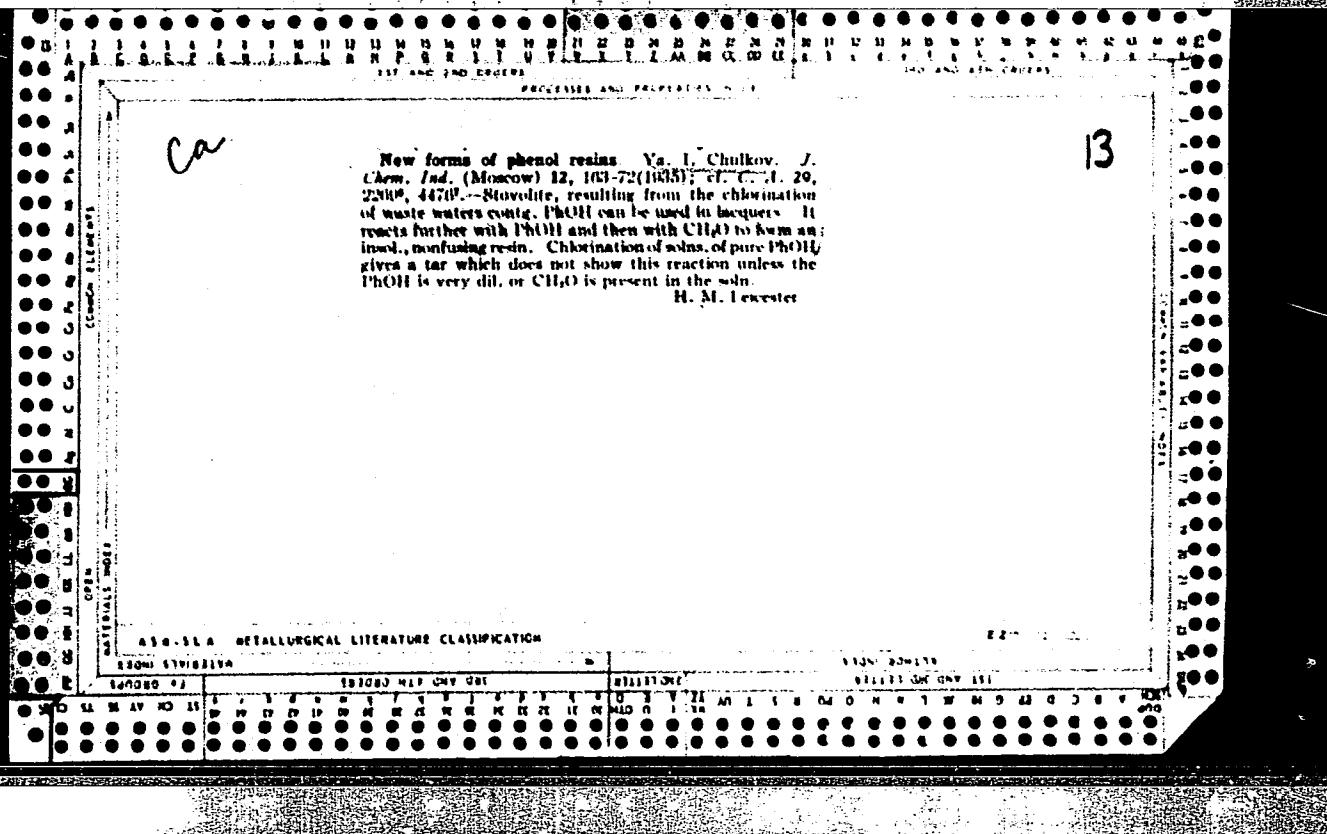
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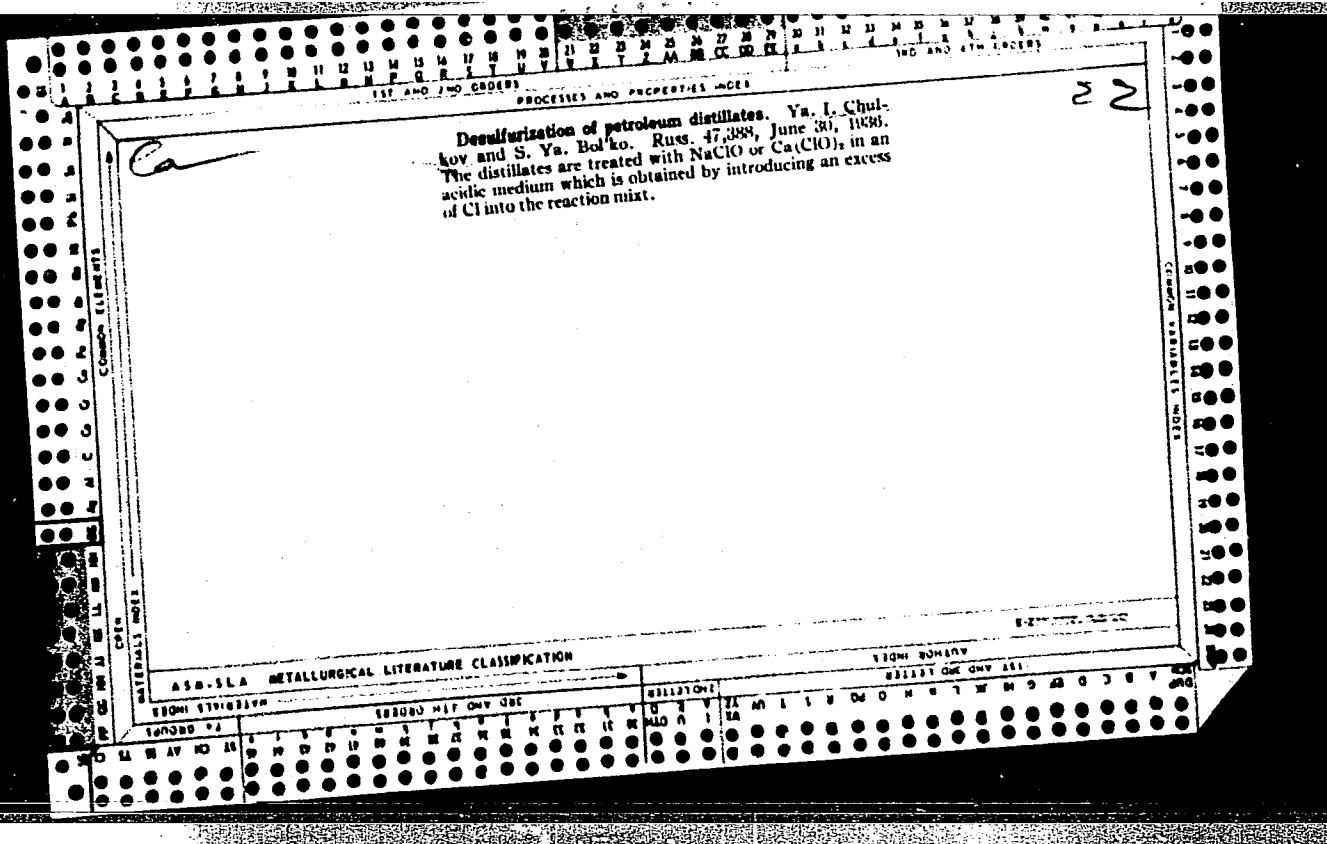


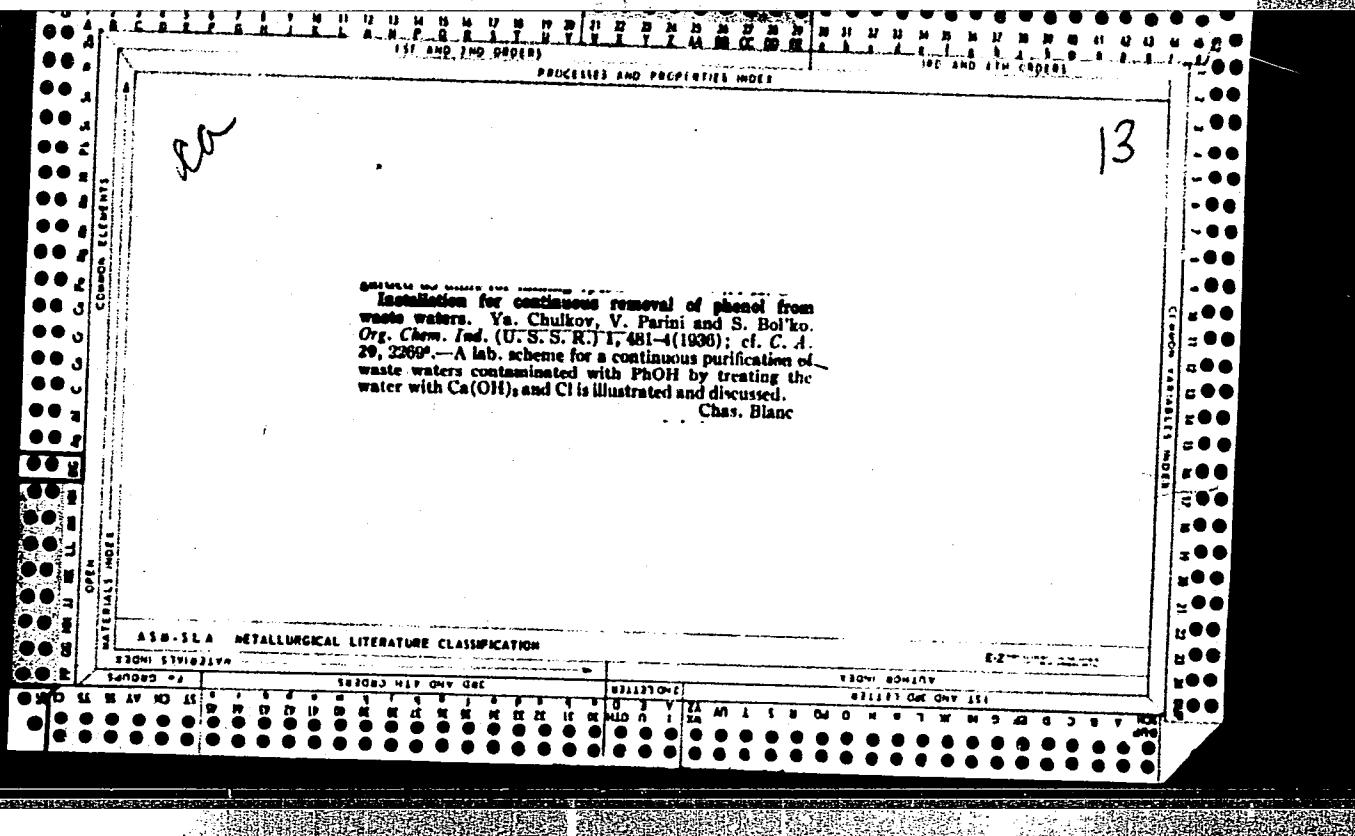












CHULKOV, YA. I.

PROCESS AND PROPERTIES INDEX

10

Chloranil and its recovery from the wastes from phenol and salicylic acid manufacture. -- Yu. I. Chulkov, T. V. Shvedova and V. P. Parini. *Org. Chem. Ind. (U. S. S. R.)* 2, 539-92 (Nov., 1961); *Chem. Zentr.* 1937, I, 286. -- Sulfite-contg. wastes from the manuf. of PhOH and salicylic acid contg. 10.1 and 4.2 g. PhOH, resp., were freed from SO_2 with CaO and CaCl_2 or air and treated with Cl_2 at room temp. (20-30 g. per l. PhOH wastes). Upon oxidation of the products of chlorination at 100° with aqua regia (25 cc. HCl , d. 1.10, and 37.5 cc. HNO_3 , d. 1.4, to 5 g. material) 35-42% chloranil was obtained (caled. on the PhOH). Data are given on the analogous treatment of residues from the sublimation of salicylic acid. M. G. Moore

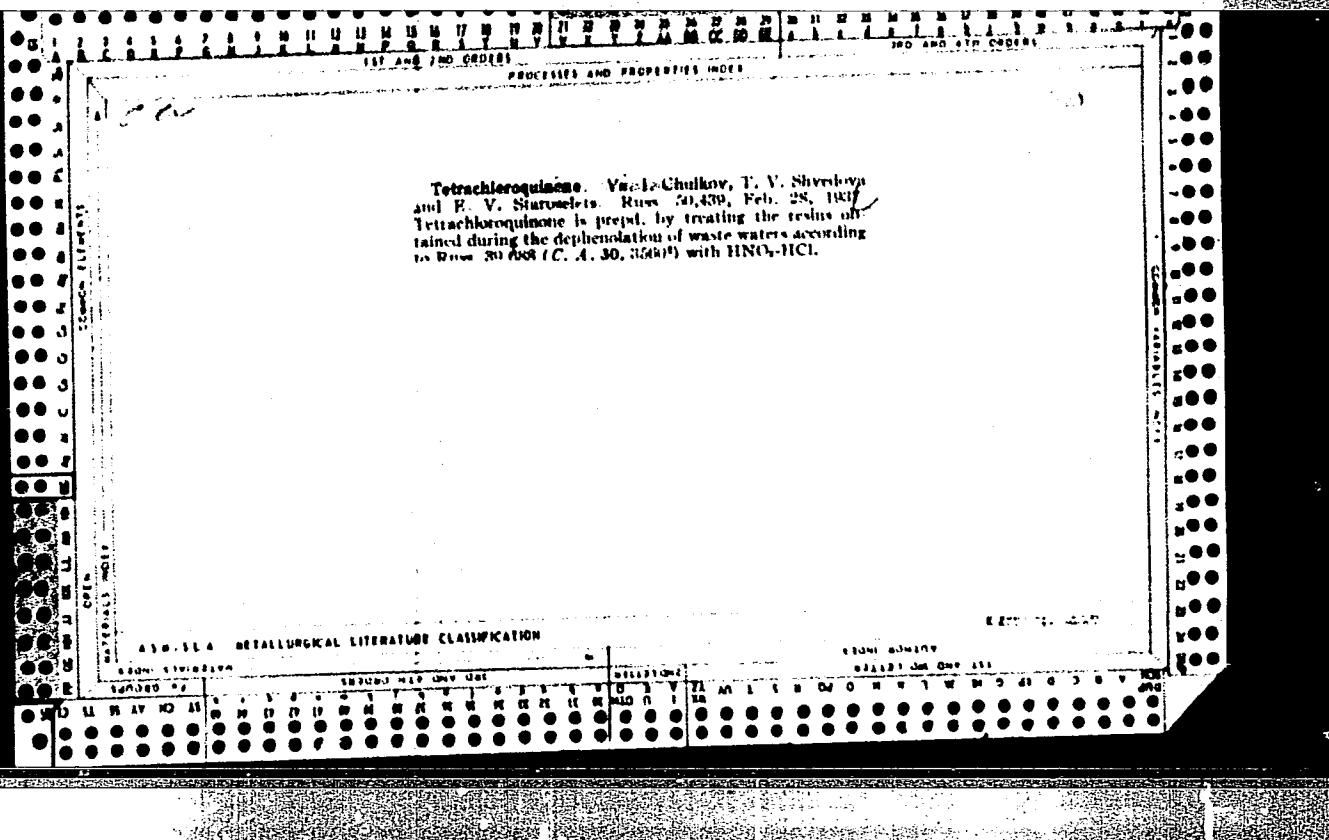
AIA-31A METALLURGICAL LITERATURE CLASSIFICATION

SECTION 1

SECTION 2 (CONT'D. ON BACK)

SECTION 3

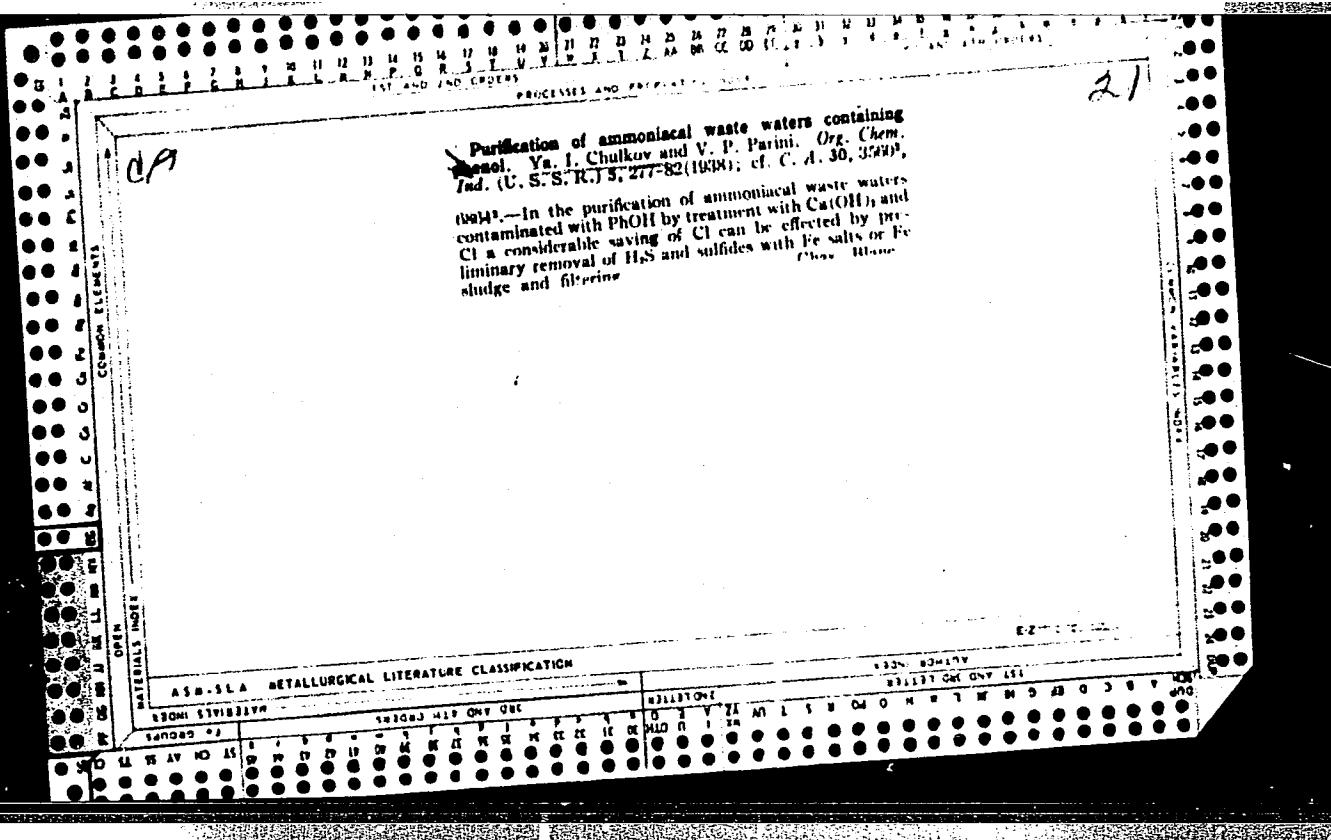
SECTION 4 (CONT'D. ON BACK)



The action of chlorine on phenol in alkaline solution and a possible method for the preparation of chloranil. Ya. I. Chukkov, V. Parini and E. Staroselets. *Org. Chem. Ind.* (U. S. S. R.) 3, 197-201 (1937). Results of preliminary experiments on the interaction of PhOH in alk. soln. with various proportions of Cl₂ and on the prepn. of tetrachloro quinone (I) are discussed. Passing 70 g. Cl₂ at 1 mol. / into 30 g. PhOH with 200 g. NaOH in 1 L. H₂O, heating the reaction mixt. to 75° and acidifying it cold with HCl resulted in 26-37 g. of an oil, consisting of o-HOC₆H₄Cl, 2,4- and 2,6-Cl₂C₆H₃OH and no HOClC₆H₄Cl (II). In a similar procedure with 400 g. NaOH and 6 Cl mols., introduced within 185-190 min., the decomprn. of the excess NaClO with NaHSO₃, before the acidification gave about 50% II, m. 67-8°. Omitting the preliminary decomprn. of NaClO resulted in a red ppt. This, washed with petr. ether and Et₂O, gave 20% I (based on PhOH). The petr. ether-Et₂O ext. ppd. ClOOC₆H₄Cl, m. 119°. This, oxidized with HNO₃ and HCl, gave I. Addns. of Cl to PhOH in excess of 6 mols. resulted in a gradual decomprn. of II, which was completed on introduction of more than 13.5 Cl mols. The oxidation, accompanied by liberation of CO₂ and heat, is accelerated by addn. of HCl. Fifteen references. Chas. Blane

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6"



The Tetraacetate Method for the Determination of Small Quantities of Water in Polyorganosiloxane Liquids

quantities of water in benzene, diethyl ether, and solvating agents with ketone character (Table 1). The water from several organic chamber acid compounds can be bound sufficiently stably to pyridine hydrate $C_6H_5 \cdot 3H_2O$ but after addition of a known

quantity of water to the pyridine the water can be determined with a maximum error of 0.2%. The described method can be applied for the water determination of industrial organosiloxane liquids of a $[(C_2H_5)_2 SiO]_n$ ($n = 3 - 12$) composition (Table 2).

There are 2 tables and 7 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electro-technical Institute)

Card 2/2

Trilonometric determination...

S/081/61/000/021/024/094
B101/B147



aliquot part of the solution (~ 20 mg of Al), solution of NH_4OH is added until the color of phenolphthalein turns red and boiling is performed until decolorization occurs. Thereafter, 2 milliliters of $2\text{NCH}_3\text{COOH}$ is added and the solution is again boiled for 3 min. After cooling to 40°C , 10 milliliters of acetate buffer solution with pH 6.0 and 1 milliliter of 0.2% hematoxylin solution are added, and diluted to 100 milliliters. The hot solution ($60 - 70^\circ\text{C}$) is titrated with the standard solution of aluminum potassium sulfate. A method was developed for determining Ti, based on titration of its complex compound with H_2O_2 with a solution of I in the presence of Fe^{3+} , and salicylic acid as indicator. The determination includes titration at pH 1.4 - 1.6, at first only of Fe^{3+} and then, after adding H_2O_2 , titration of Ti. For this purpose, 2 milliliters of a 0.05 M solution of Fe^{3+} is added to an aliquot part of the solution (if the Fe^{3+} content in the solution $< 0.8\%$). The substance is heated to $40 - 50^\circ\text{C}$, 0.1 milliliters of a 10% ethanol solution of salicylic acid and 2 drops of a 30% H_2O_2 solution are added; titration is performed with a 0.05 M solution of I until the color of the solution changes from red-brown to

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Trilonometric determination...

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greenish-yellow. V inhibits the Ti determination. [Abstracter's note:
Complete translation.]

Card 3/3

✓

CHULKOV, Ya.I.

Trilonometric determination of titanium in n-butyl titanate. Zav.
lab. 26 no.3:272-273 '60. (MIRA 13:6)

1. Vsesoyuznyy elektrotekhnicheskiy institut im. V.I.Lenina.
(Titanium--Analysis) (Titanium compounds)

S/032/60/026/04/10/046
B010/B006

AUTHOR: Chulkov, Ya. I.

TITLE: Trilonometric Determination of Aluminum in Polyaluminum Organo-siloxane Resins

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 4, pp. 429 - 430

TEXT: A trilonometric method for the determination of aluminum in the resins mentioned in the title is described. Before carrying out the determination, accompanying substances, among them also silicic acid are separated. The sample is heated vigorously with fuming nitric acid and sulfuric acid. By this treatment, the organic substance is burnt, silicon is transformed to silicic acid and aluminum to aluminum sulfate. After decomposing the sample, the silicic acid is separated. Excess Trilon is added to the aluminum containing solution, which is then according to a special method back titrated with 0.01 N aluminum salt solution. Na, K, Cl, SO₄, NO₃, and acetate ions do not interfere in the determination, while Fe, Ti, Zn, and Mn do so. Results obtained by this method (Table) are sufficiently accurate and reproducible. There are 1 table and 1 Soviet reference.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut im. V. I. Lenina (All-Union Electrotechnical Institute imeni V. I. Lenin)

Card 1/1

CHULKOV, Ya.I.

Argentometric determination of chlorine in n-tetrabutyl titanate. Zav.lab. 26 no.5:550 '60. (MIRA 13:?)

1. Vsesoyuznyy elektrotekhnicheskiy institut im. V.I. Lenina.
(Chlorine--Analysis) (Titanium compounds)

CHUL'KOV, Ya. I.

Preparation of nonhydroxylated solvents of very low water
content. Zhur. ob. khim. 30 no.6:1753-1755 Je '60.
(MIRA 13:6)
(Solvents) (Lead acetate)

CHULKOV, Ye. G.

Electrophoresis of blood proteins in infectious (nonspecific) and rheumatoid polyarthritis in local fangotherapy. Terap. arkh. 27 no.6:29-37 '55. (MLRA 9:2)

1. Iz kafedry biokhimii (sav. prof. G.V. Troitskiy) i fakul'tetskoy terapevticheskoy kliniki (sav. dotsent M.V. Kokhanovich) Krymskogo meditsinskogo instituta imeni IV Stalina.

(MUD THERAPY, in various diseases,

 arthritis & rheum. arthritis, eff. on blood proteins,
 electrophoresis)

(BLOOD PROTEINS, in various diseases,

 arthritis & rheum. arthritis, eff. of mud ther.,
 electrophoresis)

(ELECTROPHORESIS,

 of blood proteins in arthritis & rheum. arthritis in
 fangother.)

(ARTHRITIS, therapy,

 mud ther., eff. on blood proteins, electrophoresis)

(ARTHRITIS, RHEUMATOID, therapy

 mud ther. eff. on blood proteins, electrophoresis)

X

CHULKOV, Ye. G. Cand Med Sci -- (diss) "Evaluating the Clinical
significance
Importance of the Dynamics of the ~~Fractions of~~ Blood Protein
in Patients With Infectious ~~Arthritis~~ (Nonspecific) Polyarthritis
and Rheumatoid ~~Arthritis~~ ^{arthrosis} by means ~~in~~ involving the
use of Saxonian Therapeutic Mud." Simferopol', 1957. 15 pp 20 cm.
(Crimean State Medical Inst im I. V. Stalin), 200 copies
(KL, 25-57, 119)

- 15 -
³

BIRKUN, A.A.; CHULKOV, Ye.G.

Morphological and clinical picture of tumors of the heart. Vop.onk.
5 no.9:287-298 '59. (MIRA 12:12)

1. Iz kafedry patologicheskoy anatomii (zav. - doktor med.nauk S.A. Vinogradov) Krymskogo meditsinskogo instituta, Simferopol'. Adres avtorov: Simferopol', Bul'var Lenina, 5/7, kv.81.
(HEART neoplasms)

CHULKOV, Ye.I., inzhener.

New method of producing fin-tube walls. Elek.sta. 24 no.11:47-48 N '53.
(MLRA 6:11)
(Steam boilers) (Furnaces)

AVTONOMOV, B.V.; BONDAREV, I.I.; BORISENKO, P.I.; BURLAKA, S.A.; VESELOV,
N.D.; ZUBANOV, K.V.; KLIMENKO, G.A.; KOTILEVSKIY, D.G.; KUDISH,
A.D.; LAVRENEENKO, K.D.; MALYUTIN, N.P.; MARINOV, A.M.;
MOLOKANOV, S.I.; PLOGATYREV, A.A.; POBEGAYLO, K.M.; POGAEVSKIY,
V.L.; SAVINYKH, A.I.; SAPOZHNIKOV, F.V.; SERDYUKOV, N.P.;
FINOGENOV, Ya.I.; CHALDRANYAN, V.P.; CHULKOV, Ye.I.; SHANIN, V.P.;
SHISHOV, V.V.

Ivan Konstantinovich Khivrenko; obituary. Elek.sta. 34 no.2:96
F '63. (MIRA 16:4)

(Khivrenko, Ivan Konstantinovich, 1899-1962)

CHULKOV, Yevgeniy Ivanovich; AYZENSHTAT, I.I., redaktor; LARIONOV, G.Ye.,
tekhnicheskiy redaktor

[Operation practices of culm-heated boilers] Opyt ekspluatatsii
kotlov rabotaiushchikh na antratsitovom shtybe. Moskva, Gos. energ.
izd-vo, 1954. 120 p. (MLRA 8:3)
(Furnaces) (Coal pulverized)

CHULKOV, Yevgeniy Ivanovich; ZUDIN, B.A., red.; BORUNOV, N.I.,
tekhn.red.

[Preparation of studded casings at electric power plants]
Izgotovlenie shipovykh ekranov na elektrostantsiiakh.
Moskva, Gos.energ.izd-vo, 1959. 63 p. (MIRA 12:10)
(Electric power plants--Equipment and supplies) (Boilers)

3(4)

AUTHOR:

Chulkov, Ye. S.

sov/6-59-7-7/25

TITLE:

On the Reading on the Level in Determining the Inclination
of the Vertical Axis of Rotation of the Device (Ob otschity-
vaniia urovnya pri opredelenii naklonnosti vertikal'noy osi
vrashcheniya instrumenta)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 7, pp 29 - 30 (USSR)

ABSTRACT:

The inclination of the vertical axis of rotation of the theodo-
lote is determined in different ways at different level types
on the alidade of the horizontal circle after the readings
on the level. Four such types are pointed out. The author
suggests to modify the level reading system in such a way that
only one formula should be used for determining the inclination.
It would indicate the sign of the inclination automatically,
independent of the position of the vertical circle or of the
zero point of the level. It is suggested to read on the level
independently of its position and graduation marks. For this
purpose, the symmetrical lines of the level (n-ampule) are
assumed to be zero. The reading is done from these lines on
the left end of the level bubble from left to right, and on

Card 1/2

On the Reading on the Level in Determining the Inclination SOV/6-59-7-7/25
of the Vertical Axis of Rotation of the Device

the right end, from right to left (the observer being on the telescope eyepiece). At the transiting of the telescope, and turning the alidade by 180° , reading is quite the same although the level ends have changed their positions. In all types of level, the inclination is obtained in half dividing lines of the level by the formula $i = R - L$. L is the reading on the left end of the level bubble, R that on the right end. The advantages of this method are listed. It was suggested by the author in 1956, and has proved to be successful. It is employed in some departments, and should be introduced in all field departments to raise the quality of observations in triangulating.

Card 2/2

CHULKOV, Yu.

Portable instruments for checking electric equipment. Avt. transp. 39
no. 1:25-27 Ja '61. (MIRA 14:3)

1. Glavnnyy konstruktor Novgorodskogo zavoda Tresta po rukovodstvu
zavodami po proizvodstvu garazhnogo oborudovaniya.
(Motor vehicles--Electric equipment--Testing)

CHULKOV, Yu.

Stand for testing electric equipment. Avt.transp. 4 no.8-19-20
Ag '62. (MIRA 16:4)

1. Glavnnyy konstruktor Novgorodskogo zavoda elektrooborudovaniya,
Gosudarstvennogo tresta po zukovodstvu zavodami po proizvodstvu
garazhnogo oborudovaniya Ministerstva avtomobil'nogo transporta i
shosseynykh dorog RSFSR.

(Motor vehicles--Electric equipment--Testing)

CHULKOV-EYDMAN, V.P., inzh.

Determining the trajectory of a body from the secondary derivatives of the potential. Izv. vys. ucheb. zav.; geod. i aerof. no.5:95-97 '63.
(MIRA 17:8)

LEBEDEVA, A.F.; CHULKOVA, A.G.

Electrophoretic study of blood serum proteins in vibration sickness. Trudy LSGMI 75:62-68 '63. (MIRA 17:4)

1. Kafedra gigiyeny truda s klinikoy professional'nykh zabolеваний (zav. kafedroy - prof. Ye.TS. Andreyeva-Galanina) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

DRUZ', V.A.; SOKOL'SKIY, D.V.; Prinimali uchastiye: CHULKOVA, G.L.,
studentka-diplomitsa; KABIYEV, T., student-diplomnik;
SAVICHE, Ye.I., laborant

Potentiometric study of the reactions underlying the catalytic
hydrogenation in the gas phase. Trudy Inst.khim.nauk AN
Kazakh.SSR 8:45-55 '64. (MIRA 15:12)

(Hydrogenation) (Catalysis)
(Potentiometric analysis)

KAEYNDYL', E.M.; CHARKOVSKAYA, S.E.; TESLENKO, V.M.; CHULKOVA, I.S.,
red.; LEYBUSH, A.G., red.

[Converting the methane of natural gas] Konversiya metana
prirodnogo gaza. Moskva, Khimiia, 1964. 125 p.
(NLR 17:10)

CHULKOVA, I.S.

PLOTKE, G.S., inzhener; CHULKOVA, I.S., inzhener.

Temporary specifications concerning cement grinding in vibration
mills. Bet. 1 shelf bet.no.1:34-35 Ja '57. (MIRA 10:3)
(Cement) (Milling machinery)

ATROSHCHENKO, Vasiliy Ivanovich; KARGIN, Stepan Ivanovich; CHULKOVA,
I.S., red. ZAZUL'SKAYA, V.F., tekhn. red.

[Technology of nitric acid] Tekhnologiya azotnoi kisloty. Mo-
skva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1962. 523 p.
(MIRA 15:3)
(Nitric acid)

ZOTOV, Aleksey Timofeyevich; CHULKOVA, I.S., red.; SHPAK, Ye.G.,
tekhn. red.

[Urea] Mochevina. Moskva, Goskhimizdat, 1963. 173 p.
(MIRA 17:2)

YANULOV, K.P.; CHULKHOVA, I.V.

Oriented pseudomorphoses of rutile after ilmenite. Dokl. AN SSSR
140 no.1:215-217 S-0 '61. (MIRA 14:9)

1. Institut geologii Komi filiala AN SSSR. Predstavлено академиком
N.V.Belovym.
(Rutile) (Ilmenite) (Metasomatism)

YANULOV, K.P.; CHULKOVA, I.V.

Leucoxene of Devonian sandstones in the southern Timan Ridge. Trudy
Inst.geol.Komi fil. AN SSSR no.3:157-169 '62. (MIRA 16:9)
(Timan Ridge--Leucoxene)

GETSELEV, V.; RAZUMNEVICH, V.; CHULKOVA, K., red.; SPIRIDONOV, N., tekhn.red.

[Friendship; a sketch] Drushebs; ocherk. Kuibyshevskoe knishnoe
izd-vo, 1954. 27 p.
(Labor and laboring classes)

OKLYANSKIY, Yuriy Mikhaylovich; CHULKOVA, K.P., red.; YASHEN'KINA,
Ye.A., tekhn.red.

[Confidence; a sketch] Doverie; ocherk. Kuibyshev, Kuiby-
shevskoe knizhnoe izd-vo, 1959. 51 p.
(Efficiency, Industrial) (MIRA 13:2)

LAPIN, Konstantin Kirillovich; CHULKOVА, K.P., red.; SHOHERBAKOV,
A.I., tekhn. red.

[Conquerors of the Volga] Pokoriteli Volgi; ocherki. Kuibyshev,
Kuibyshevskoe knizhnoe izd-^o, 1956. 140 p. (MIRA 15:12)
(Volga Hydroelectric Power Station (Lenin))

CHULKOVA, L.A.; KOZHEMYAKIN, V.A.

Discussion of G.A.Meerson's and A.N.Zelikman's book entitled "Metallurgy of Rare Metals" at a readers' conference in the State Rare Metals Scientific Research Institute. TSvet.met.29 no.12:78-81 D '56.
(MLRA 10:2)

(Nonferrous metals--Metallurgy)

USSR/Metals, Nickel, Permalloy

PA-24T65

Jan 1947

"The Magnetic Viscosity of Nickel and Permalloy Under Tension," R. V. Telesnin, Lecturer,
M. E. Chulkova, L. Ya. Rudaya, 6 pp

"Vestnik Moskovskogo Universitets" No 1

The initial stage of the magnetic viscosity of extended nickel and permalloy have been
studied by means of a Helmholtz pendulum interpreter. A strong influence of the magnetic
viscosity on the velocity of the change in the magnetization of the extended nickel and
permalloy has been discovered.

Pa-24T65

06480

SOV/141.1-5.6-24/28

AUTHORS: Telesmin, R.V., Il'icheva, Ye.N. and Chulkova, M.I.

TITLE: Dependence of the Magnetic Viscosity of Nickel-zinc
Ferrites on Their CompositionPERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika,
1958, Vol 1, Nr 5-6, pp 180-182 (USSR)ABSTRACT: The aim of the present work was to study the magnetic viscosity as a function of the composition of nickel-zinc ferrites after they have been subjected to an aperiodic change in the field. The magnetic viscosity was measured as described in Ref 1. A toroidal ferrite specimen carrying a single 20-turn coil was included in the circuit of a 6P9 tube. The current which produces the magnetizing field ($\Delta H = 0.1$ Oe) passed through the valve and the coil. The main magnetizing field H was produced by a current passing through the same coil and was derived from a battery. By varying the magnitude and direction of H , it was possible to bring the specimen to any point on the main magnetization curve or the back of the hysteresis loop. The introduction of the additional field AH enables one to take the specimen to a neighbouring point on the

Card1/3

06480

SOV/141-1-5-6-24/28

Dependence of the Magnetic Viscosity of Nickel-zinc Ferrites on
Their Composition

curve. The change in the magnetization of the specimen, which takes place at some finite rate, induces an emf in the coil and this is detected through a cathode follower on the screen of a CRO. Seven toroidal specimens were investigated and their percentage composition is shown in Table 1. Figure 2 gives the curves of the differential permeability as a function of H and the magnetic viscosity γ . The main maximum of the magnetic viscosity curve coincides with the maximum of the differential permeability curve. The second maximum lies to the left of this. The distance between the two peaks on the magnetic viscosity curve decreases as the curvature of the differential permeability curve increases.
There are 2 figures, 1 table and 5 Soviet references.

Card 2/3

06480

SOV/141-1-5-6-24/28

Dependence of the Magnetic Viscosity of Nickel-zinc Ferrites on
Their Composition

ASSOCIATION: Fizicheskaya laboratoriya Voyenno-inzhenernoy akademii
im. F.E. Dzerzhinskogo (Physics Laboratory of the
Military Engineering Academy im. F.E. Dzerzhinskiy)

SUBMITTED: July 12, 1958

Card 3/3

CHULKOVA, M. S.

"Carbonic Anhydrase of Blood in Certain Forms of Respiratory Imperfection."
Thesis for degree of Cand. Medical Sci. Sub 26 May 1949. - no inst. given.

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering
in Moscow in 1949. From Vechernaya Moskva, Jan-Dec. 1949.

CHULKOVA, M.S.

RAKHMELEVICH, Ye.M.; CHUIKOVA, M.S.

Effect of determined muscular work on the modification of carbon
anhydrase as a method of functional diagnosis in disorders of the
respiratory and hemopoietic systems. Klin.med. Moskva 28 no.5:74-83
May 50. (CLML 19:4)

1. Of the Biochemical Laboratory (Head -- Ye.M.Rakhmalevich) of the
Scientific-Research Institute for the Certification of Working
Capacity and Organization of Work of Invalids, Moscow.

Do not forward

ARBATSKAYA, Yu.D.; KOGAN, V.M.; PETROV, D.I.; PIS'MENNYY, R.Ya.; CHULKOVA,
M.S.

Studying patients in the first stage of hypertension with an initial cerebral syndrome in connection with their working conditions. Zhur. nevr. i psikh. 56 no.6:472-477 '56. (MIRA 9:8)

1. Kafedra vrachebno-trudovoy ekspertizy (zav. prof. N.K.Bogolepov) TSentral'nogo instituta usovershenstvovaniya vrachey i TSentral'nyy institut ekspertizy trudosposobnosti i trudovogo ustroystva invalidov (dir. - prof. O.I.Sokol'nikov), Moskva.

(HYPERTENSION, compl.

funct. disord. of brain in telegraphers, determ. of clin.
manifest.)

(BRAIN, dis.

funct. disord. in telegraphers with hypertension, determ.
of clin. manifest.)

(OCCUPATIONAL DISEASES

cerebral funct. disord. in telegraphers with
hypertension, determ of clin. manifest.)

CHULKOVA, O.N.; FORSTADT, R. A.

~~Tomus of the vesical sphincter in ontogenesis. Tr. Vescoius. obsh.
fisiol. no. 1:95 1952.~~
(CLML 24:1)

1. Delivered 6 January 1949, Chkalov.

PORSHTADT, R.A.; CHULKOVA, O.N.

Neuro-humoral regulation of the vesical sphincter in ontogenesis.
Tr. Vaescius. ovsh. fiziol. no. 1:95-96 1952. (GLML 24:1)

1. Delivered 6 January 1949, Chkalov.

CHULKOVA, O.N.

Functional state of the vestibular analyzer of white mice with
radiation sickness. Radiobiologija 4 no.5:785-786 '64.

(MIRA 18:4)

1. Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy
gigiyeny Ministerstva zdravookhraneniya RSFSR.

UGOLEV, A.M.; CHULKOVA, T.M.

Phytolytic and zoolytic activity of the amylase in the blood
in experimental ethionine pancreatitis. Biul. eksp. biol.
i med. 52 no.9:45-50 S '61. (MIRA 15:6)

1. Iz laboratorii obshchey fiziologii (zav. - akademik
V.N. Chernigovskiy) Instituta formal'noy i patologicheskoy
fiziologii (direktor - deystvitel'nyy chlen AMN SSSR V.V. Parin)
AMN SSSR, Moskva. Predstavlena akademikom V.N. Chernigovskim.
(AMYLASE) (PANCREAS--DISEASES)
(BLOOD) (ETHIONINE--PHYSIOLOGICAL EFFECT)

CHULKOVA, T.M.; OREKHOVICH, V.N.

Effect of somatotropic hormone on the inclusion of radioactive
proline into procollagen. Vop.med.khim. 11 no.6:76-77 N.D '65.
(MIRA 18:12)

I. Institut biologicheskoy i meditsinskoy khimii AMN SSSR,
Moskva. Submitted June 15, 1964.

CHULKOVА, Т.Н.

The effect of conditions of cultivation on the assimilation of NH_4^+ salts by typhoid bacilli. T. N. Chirkova, Lab. Prakt. (U. S. S. R.) 16, No. 12, 7-8 (1941).—Typhoid bacilli which normally do not assimilate NH_4^+ salts were induced to assimilate them by changing the conditions of culturing. Special synthetic media were used to test the assimilability by the typhoid bacilli. $(\text{NH}_4)_2\text{PO}_4$, $(\text{NH}_4)_2\text{CO}_3$, $(\text{NH}_4)_2\text{C}_2\text{H}_5\text{O}_2$, NH_4Cl and $(\text{NH}_4)_2\text{SO}_4$ were used as sources of N. Glucose was the source of carbohydrate. The compn. of the medium was: NH₄ salt 1, glucose 10, K₂HPO₄ 1, MgSO₄ 0.2 and NaCl 1 g. and distilled water 1 l. Both liquid and solid media were used. To remove neg. impurities, the agar was soaked for 2 days in distilled water. Growth was carried out in test tubes in the still state and in the same media in the "Titteukov micro-generator" under flowing conditions (at 37° and pH 7.4). The strains of typhoid bacilli used did not normally assimilate NH_4^+ salts. The microgenerator consisted of the following parts: a balloon flask containing the reserve

supply of nutritive medium; culture chamber with a tube for the inoculation; a drop stopcock, and a flask to receive the liquid flowing out of the culture chamber. The passage of the nutritive medium from the balloon flask to the culture chamber is regulated by means of a screw stopcock. After filling the balloon flask with liquid the whole app., is sterilized in the autoclave at 120° for 30 min. A day-old culture is suspended in a suitable synthetic medium and the culture chamber is inoculated by means of a Pasteur pipet. Observations on growth in the microgenerator were made during 10-12 days and all expts. were repeated 3 times. The typhoid bacilli were able to grow not only in the still nutritive medium, but also in the continuously changing medium. Under ordinary conditions of cultivation in still synthetic media contg. NH₄ salts, the strains of typhoid bacilli used did not assimilate NH₄ salts or show signs of growth. In the microgenerator with a continuously flowing nutritive medium contg. NH₄ salts the same bacilli developed easily. Five references.

ed easily. — F. B.

APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000509110018-6"

46-3-12/15

Tests on Experimental Ferrite Ultrasonic Receivers.

on nickel-zinc ferrite receivers of ultrasound. The specimens were of rectangular form and had dimensions similar to those described in (Ref.2). The sensitivity γ of receivers made from ferrites on frequency f is shown in Fig.1. Four curves are given for different zinc-ferrite content, all have a peak between 33 and 43 kc/s. The specific sensitivity γ/z is shown in Fig.2. Fig.3 shows the specific sensitivity of receivers as a function of the magnetic field, H . Preliminary results indicate that ferrites are interesting from the point of view of their application in magnetostriiction receivers. They have a number of advantages over metallic transducers, namely, possibility of use at higher frequencies, simplicity of preparation and cheapness. There are 3 figures and 5 references, 1 German, 2 English and 2 Russian.

ASSOCIATION: **Institute of Acoustics** of the Ac.Sc. USSR, Moscow,
Chelyabinsk → Institute of Physics of Metals of the Ural Branch of the Ac.
Sc.USSR, Sverdlovsk (Akusticheskiy institut AN SSSR, Moskva,
Institut fiziki metallov, Ural'skogo filiala AN SSSR,
Sverdlovsk)

Card 2/3

46-3-12/15

•Tests on Experimental Ferrite Ultrasonic Receivers.

SUBMITTED: May 28, 1957.

AVAILABLE: Library of Congress.

Card 3/3

L 10298-65 FWT(1)/EEC(b)-2/EED-2/EWA(h) Pub DPP/10 APR 1981 BY RDP/ASW
-2/SSD/t/RAY
NP: AP4044610

AUTHOR: Golyamina, I. P.; Chulkova, V. K.

TITLE: Properties of magnetostrictive ferrites at large amplitudes
of excitation induction and mechanical stress

SOURCE: Akusticheskiy zhurnal, v. 10, no. 3, 1964, 276-283

TOPIC TAGS: ferrite material, magnetostriction, acoustic transducer,
elastic wave, acoustoelectric transducer material

ABSTRACT: The mechanical Q, Young's modulus E, and the magneto-
striction constant λ were measured as functions of the amplitude of
the mechanical stress σ and of the excitation induction B of four
magnetostriction ferrite samples (21, 38, 41, 42). These ferrites
were thoroughly tested by one of the authors previously (I. P.
Golyamina, Akust. zh. 1960, v. 6, no. 3, 311). The present measure-
ments were part of tests made in 1960—1961 at Akusticheskiy institut

L 10398-65

ACCESSION NR: AP4044610

AN SSSR on the use of ferrites as electroacoustic transducers. The mechanical Q was determined from the time decrease in the amplitude of the free oscillations of the samples after turning off the external field. The Young's modulus was determined from the frequency corresponding to the maximum amplitude of the oscillations of the sample ends in an alternating magnetic field of fixed amplitude. The piezoelectric constant was determined as the ratio of the magnetostriction stress amplitude to the induction at a frequency below resonance. The test equipment and procedure are described. The tests were made at optimal field strength and at 300 Hz. Comparison of the results with calculations (by L. N. Syrkin, "Ferrites," Minsk, AN BSSR, 1960) showed considerable discrepancy attributed to failure to include higher-order terms in the calculations. The effect of a constant magnetizing field on the friction properties is discussed and the maximum magnetostriction stress, which limits the intensity of radiation produced by transducers, is determined for the different ferrites.

Card 2/3

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Orig. art. has: 5 figures, 7 formulas, and 3 tables.

ASSOCIATION: Akusticheskiy institut AN SSSR, Moscow (Acoustic Institute AN SSSR)

DATE REC'D.: 21Mar64 ATD PRESS: 3.10 ENCL: 00
CITY CODE: EC,BM NR REF Sov: 004 OTHER: 004

Card 3/3

L 10252-66 EWT(1)

ACC NR: AP5028056

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AUTHOR: Golyamina, I. P.; Chulkov, V. K.

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ORG: Acoustical Institute, AN SSSR, Moscow (Akusticheskiy institut AN SSSR)

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TITLE: Using the magnetoelastic effect in ferrites for measuring low-frequency

alternating pressures

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alternating pressures

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